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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,729	02/22/2002	Mark Kenneth Eyer	80398.P485	8355

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EXAMINER

CHOU, ALBERT T

ART UNIT	PAPER NUMBER
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2471

MAIL DATE	DELIVERY MODE
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10/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/080,729	Applicant(s) EYER, MARK KENNETH	
	Examiner ALBERT T. CHOU	Art Unit 2471	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1-24 and 26.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's Amendments/Remarks filed on June 24, 2009 have been entered. Claims 1, 5, 8, 14, 17 and 21 have been amended. Claim 25 has been canceled. No new claim has been added. Claims 1-24 and 26 are pending in this application, with claims 1, 5, 8, 14, 17 and 21 being independent.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,185,228 to Takashimizu et al. (hereinafter "Takashimizu") in view of US Patent Application Pub. No. 2005/02101390 A1 by Kikuchi et al. (hereinafter "Kikuchi") and further in view of US Patent No. 5,805,602 to Cloutier et al. (hereinafter "Cloutier")

Regarding claims 1, 8, 14, 17 and 21, Takashimizu teaches an apparatus, a method and a computer-readable medium **[Fig. 1; A digital broadcasting signal receiving apparatus; col. 3, line 46 – col. 4, line 19, 32-56]**, comprising:

a first circuitry coupled to select transport packets from a Transport Stream **[Fig. 3, step 201; input desirable logical channel, i.e. a transport stream combining video and audio information; col. 5, lines 12-17]**, the selected packets being those identified with a Program Clock Reference Packet Identifier (PCR PID) and to select from the Transport Stream transport packets identified with audio Packet Identifiers **[Figs. 1 & 3, step 208; Acquire PIDs of video, audio and PCR which constitute program; col. 5, line 59-61]**; and

a second circuitry coupled to deliver the selected transport packets to an audio processor **[Figs. 1 & 3, step 209; desirable video and audio streams are entered into the MPEG2 decoder 405 (audio/video decoder) so as to be decoded therein; col. 5, lines 63-65]**.

Though Takashimizu teaches selecting video, audio and PCR transport packets and delivering the video, audio and PCR transport packets to the MPGE2 decoder/audio processor, Takashimizu does not expressly teach the selected packets being only those identified with a PCR ID and that include a PCR sample in an adaptation field, and to deliver only the selected transport packets to an audio processor.

Kikuchi, in the similar field of endeavor, teaches an MPEG2 decoder 200 comprising of selecting transport packets from a Transport Stream **[Fig. 2B; para. 0050-0051]**, the selected transport packets being only the transport packets that include a Program Clock Reference (PCR) and audio transport packets **[Fig. 2B; The Multiplex**

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Data Separation Unit 202 derives PCR and audio data from each TS packet; para. 0051-0053]; and

delivering only the selected audio transport packets and the selected PCR transport packets to an audio processor **[Fig. 2B; The Multiplex Data Separation Unit 202, coupling Audio Compressed Data Depacketing Circuit 203 and Preference Time Recovery Circuit 205, delivers only the selected audio (AAU and PTS) and PCR packets to Audio Data Decoding Circuit 206; para. 0051-0053].**

Cloutier teaches a jitter correction device 122 as receiving an MPEG-encoded data stream carrying Program Clock Reference (PCR) data. The jitter correction device 122 comprises a PCR detector 124 that detects each occurrence of a PCR value in the MPEG stream **[Fig. 3; col. 14, lines 40-67]**. The PCR detector 124 identifies the occurrence of the PCR value in the optional adaptation field by reading the adaptation field control 150e to determine whether an optional adaptation field is present. If the 2-bit adaptation field control 150e identifies the presence of the optional adaptation field 152, the PCR detector 124 checks the PCR flag in the flag portion 152b to determine whether the PCR value is present. If the PCR flag indicates that the PCR value is present, the PCR detector outputs the PCR detection signal (EN) and reads the PCR value from the PCR field 152c **[Figs. 3-4; col. 16, lines 1-16]**.

Takashimizu, in view of Kikuchi and Cloutier, teaches delivering the selected audio transport packets and the selected PCR transport packets to an audio processor but does not expressly disclose the delivering is across at least one of a bandwidth-limited link and a Bluetooth link.

However, Kikuchi teaches the MPEG2 data processing system including a camera unit 10, an encoder unit 100, a decoder unit 200 and a monitor unit 400. Video and audio data taken with the camera unit 10 is supplied to the encoder unit 100. The encoder unit 100 compresses and encodes the video and audio data and then packetizes it. The packetized data is transmitted to the decoder unit 200/audio data decoding circuit 206 **[Figs. 2A & 2B: para. 0027]** via a transmission path 300 which may be a wireless path **[Fig. 2A: para. 0049]**.

It would have been obvious to one person of ordinary skill in the art to recognize that a wireless transmission path or link, regardless using any kind of protocols, including Bluetooth, is inherently bandwidth-limited due to its inherent characteristics of using the radio signal/frequency as the transmission or propagation medium. Thus, Kikuchi's invention does not depart from the scope and spirit of "*delivering the selected audio transport packets and the selected PCR transport packets to an audio processor across at least one of a bandwidth-limited link and a Bluetooth link*" set forth above.

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to recognize that Takashimizu's MPEG2 decoder 405 may indeed perform, or may be modified to perform, the same decoding steps and functions as disclosed by Kikuchi's MPEG2 decoder 200 - namely, delivering only the selected audio transport packets and the selected PCR transport packets to an audio processor across at least one of a bandwidth-limited link and a Bluetooth link, since both inventions are closely related arts and both are directed to the process of decoding of MPEG2 /audio/PCR transport packets.

Furthermore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include the function of the jitter correction device 122 or the PCR detector 124 into Takashimizu's receiving apparatus.

The motivation for combining the reference teachings of Kikuchi and Cloutier would be not only to enable Takashimizu's receiving apparatus to identify the occurrence of the PCR value in the optional adaptation field by reading the adaptation field control 150e to determine whether an optional adaptation field is present but also to enable Takashimizu's receiving apparatus to initiate corrective action in response to the detected jitter.

Regarding claims 2, 9, 18 and 22, Takashimizu teaches the first circuitry is further coupled to select from the Transport Stream packets identified with a Program Association Table Packet Identifier (PAT PID) **[Figs. 1 & 3, step 201-203; Receive and select Transport Stream packets identified with a PAT ID; col. 5, lines 24-36].**

Regarding claims 3, 10 19 and 23, Takashimizu teaches the first circuitry is further coupled to select from the Transport Stream packets identified with a Program Map Table Packet Identifier (PMT PID) corresponding to a selected MPEG-2 program **[Figs. 1 & 3, step 207; Acquire PID of Program Map Table PMT to receive PMT corresponding to the selected MPEG-2 program; col. 5, lines 44-65].**

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Regarding claim 4, Takashimizu teaches the apparatus further comprising a third circuitry coupled to deliver video transport packets to a video processor **[Figs. 1 & 3, steps 208-209; the decoded video signal is processed via the OSD 408 by the NTSC encoder 406, a video processor; col. 5, line 66 – col. 6, line 6]**.

Regarding claims 11, 20 and 24, Takashimizu, in view of Kikuchi and Cloutier, teaches the method wherein selecting from the full Transport Stream packets having an Adaptation Field and a Program Clock Reference (PCR) further comprises selecting from the full Transport Stream one or more packets identified with audio Packet Identifiers **[Figs. 1 & 3, steps 208-209; Acquire PIDs of audio data and enter the audio data into D/A Converter 407, an audio processor; col. 5, line 44 - col. 6 line 6]**.

Regarding claims 12 and 15 and, Takashimizu, in view of Kikuchi and Cloutier, teaches delivering the packets having an Adaptation Field and a Program Clock Reference (PCR) and the audio packets to an audio processor across at least one of a bandwidth-limited link or a Bluetooth link **[Figs. 2A & 2B: The packetized data is transmitted to the decoder unit 200/audio data decoding circuit 206 via a transmission path 300 which may be a wireless path; para. 0027, 0049]**.

Regarding claims 13, 16 and 26, Takashimizu, in view of Kikuchi and Cloutier, teaches delivering the full Transport Stream to a video processor across a high-speed

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serial bus [Takashimizu: Fig. 1; It would have been obvious to one skill in the art to recognize that MPEG-2 video signal processed via OSD 408 by the NTSC Encoder 406 is delivered across a high-speed series bus with a rate in Mbits, since MPEG-2 is based on 27 MHz oscillator; Cloutier: col. col. 9, line 33 - col. 10, line 5].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,185,228 to Takashimizu et al. (hereinafter "Takashimizu") in view of US Patent Application Pub. No. 2005/02101390 A1 by Kikuchi et al. (hereinafter "Kikuchi")

Regarding claim 5, Takashimizu teaches a method, comprising:

selecting transport packets from a Transport Stream **[Fig. 3, step 201; input desirable logical channel, i.e. a transport stream combining video and audio information; col. 5, lines 12-17]**, the selected transport packets being the transport packets that include a Program Clock Reference (PCR) and audio transport packets

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[Figs. 1 & 3, step 208; Acquire PIDs of video, audio and PCR which constitute program; col. 5, line 59-61]; and

delivering the selected audio transport packets and the selected PCR transport packets to an audio processor **[Figs. 1 & 3, step 209; desirable video and audio streams are entered into the MPEG2 decoder 405 so as to be decoded therein; col. 5, lines 63-65].**

Though Takashimizu teaches a method of selecting video, audio and PCR transport packets and delivering the video, audio and PCR transport packets to the MPGE2 decoder/audio processor, Takashimizu does not expressly teach the selected transport packets being only the transport packets that include a Program Clock Reference (PCR) and audio transport packets and delivering only the selected audio transport packets and the selected PCR transport packets to an audio processor.

Kikuchi, in the similar field of endeavor, teaches an MPEG2 decoder 200 comprising of selecting transport packets from a Transport Stream **[Fig. 2B; para. 0050-0051]**, the selected transport packets being only the transport packets that include a Program Clock Reference (PCR) and audio transport packets **[Fig. 2B; The Multiplex Data Separation Unit 202 derives PCR and audio data from each TS packet; para. 0051-0053]; and**

delivering only the selected audio transport packets and the selected PCR transport packets to an audio processor **[Fig. 2B; The Multiplex Data Separation Unit 202, coupling Audio Compressed Data Depacketing Circuit 203 and Preference**

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Time Recovery Circuit 205, delivers only the selected audio and PCR packets to Audio Data Decoding Circuit 206; para. 0051-0053].

Kikuchi teaches delivering the selected audio transport packets and the selected PCR transport packets to an audio processor but does not expressly disclose the delivering is across at least one of a bandwidth-limited link and a Bluetooth link.

However, Kikuchi teaches the MPEG2 data processing system including a camera unit 10, an encoder unit 100, a decoder unit 200 and a monitor unit 400. Video and audio data taken with the camera unit 10 is supplied to the encoder unit 100. The encoder unit 100 compresses and encodes the video and audio data and then packetizes it. The packetized data is transmitted to the decoder unit 200/audio data decoding circuit 206 **[Figs. 2A & 2B: para. 0027]** via a transmission path 300 which may be a wireless path **[Fig. 2A: para. 0049]**.

It would have been obvious to one person of ordinary skill in the art to recognize that a wireless transmission path or link, regardless using any kind of protocols, including Bluetooth, is inherently bandwidth-limited due to its inherent characteristics of using the radio signal/frequency as the transmission or propagation medium. Thus, Kikuchi's invention does not depart from the scope and spirit of "*delivering the selected audio transport packets and the selected PCR transport packets to an audio processor across at least one of a bandwidth-limited link and a Bluetooth link*" set forth above.

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to recognize that Takashimizu's MPEG2 decoder 405 may indeed perform, or may be modified to perform, the same decoding steps and functions

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as disclosed by Kikuchi's MPEG2 decoder 200 - namely, delivering only the selected audio transport packets and the selected PCR transport packets to an audio processor across at least one of a bandwidth-limited link and a Bluetooth link, since both inventions are closely related arts and both are directed to the process of decoding of MPEG2 /audio/PCR transport packets.

Regarding claim 6, Takashimizu teaches the method further comprising selecting from the Transport Stream packets identified with a Program Association Table Packet Identifier (PAT PID) **[Figs. 1 & 3, step 201-203; Receive and select Transport Stream packets identified with a PAT ID; col. 5, lines 24-36]**.

Regarding claim 7, Takashimizu teaches the method further comprising selecting from the Transport Stream packets identified with a Program Map Table Packet Identifier (PMT PID) corresponding to a selected MPEG-2 program **[Figs. 1 & 3, step 207; Acquire PID of Program Map Table PMT to receive PMT corresponding to the selected MPEG-2 program; col. 5, lines 44-65]**.

Response to Remarks

4. In light of Applicant's amendments filed on June 24, 2009, rejection of claims 5-11 under 35 U.S.C. 101 has been withdrawn.

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5. Applicant's Remarks/Amendments filed on June 24, 2009 regarding the rejection of claims 1, 5, 8, 14, 17, 21 and their respective dependent claims in the application have been fully considered but are moot in view of new grounds of rejection.

In particular, Applicant's remarks "*Applicant respectfully submits that there is no express disclosure in Takashimizu that the link between the D/A converter 407 and the TV 410 is bandwidth limited. In fact, nowhere in Takashimizu is the term "bandwidth" mentioned. If the Examiner is asserting that it is inherent that the link between the D/A converter 407 and the TV 410 is bandwidth limited, then the Examiner must show that it necessarily flows from the disclosure of Takashimizu that the link between the D/A converter 407 and the TV 410 is bandwidth limited. An Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art*" have been fully considered. In response to Applicant's remarks, Examiner has addressed the inherent characteristic of the prior art recited in detail in Section 2, rejection of claims 1, 8, 14, 17 and 21 under 35 USC 103(a) and Section 3, rejection of claim 5 under 35 USC 103(a) of current Office Action.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert T. Chou whose telephone number is 571-272-6045. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham, can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Albert T Chou/

Examiner, Art Unit 2471

October 17, 2009